users of the system to monitor and manage efforts to improve the value of the business in a manner that is superior to that available to users of traditional accounting systems and business valuation reports. The user also has the option of examining the relationship between the calculated business value and the market price of equity for the business.

While the above description contains many specificity's, these should not be construed as limitations on the scope of the invention, but rather as an exemplification of one preferred embodiment thereof. Accordingly, the scope of the invention should be determined not by the embodiment illustrated, but by the appended claims and their legal equivalents.

CLAIMS

1. A computer-implemented method for identifying value drivers by element of value over a sequential series of points in time preceding a specified valuation date, comprising the steps of:

(a) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing the current operation revenue, current operation expense, and current operation changes in capital of said enterprise;

(b) entering into a memory of said computer numbers representing the value of variables associated with all items within an element, for each point in time of said sequential series of points in time, for each element;

(c) calculating and storing item performance indicators, for each element of said enterprise, for said sequential series of points in time from the item variables entered in step (b); and

(d) identifying the item variables and the item performance indicators that generated enterprise current-operation: revenue, expense or changes in capital, over said sequential series of points in time, as value drivers, by element, using a search algorithm.

2. The computer implemented method of claim 1 wherein the numbers representing enterprise current operation revenue, expenses and the changes in capital, entered in step (a), for each point in said series of points in time, are optionally divided into sub-groups for more detailed analysis.

3. The computer implemented method of claim 1 wherein the three numbers representing enterprise current operation revenue, expense and changes in capital, entered in step (a), are calculated by a method comprising the steps of:

(a) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing total: revenue, expenses, and changes in capital of said enterprise;

(b) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing: the total growth option: revenue, expenses and changes in capital of said enterprise; and

(c) subtracting: each of growth option revenue, expense and changes in capital from the corresponding total revenue, expense or changes in capital to yield the current operation revenue, expense and change in capital for said enterprise, for each point in time of said sequential series of points in time.

4. The computer implemented method of claim 1 wherein some portion of said item variable data entry into said memory of said computer in step (b) is completed via automated retrieval of information from the internet.

5. The computer implemented method of claim 1 wherein item performance indicators calculated in step (c) for each item within an element include: the cumulative total value, the period to period rate of change in value, the rolling average value and the time lagged value of each item variable.

6. The computer implemented method of claim 1 wherein a search algorithm identifies the item variables and item performance indicators that clearly aren't value drivers before induction algorithm processing is started.

7. The computer implemented method of claim 1 wherein, later points in time of the sequential series of points in time are given greater weight than earlier points in time when identifying item variables and item performance indicators in step (d).

8. The computer implemented method of claim 1 wherein said elements of a business enterprise include at a minimum: customers, sales employees, production/service employees, support employees, other employees, vendors, channel partners, production equipment, infrastructure and brand names.

9. The computer implemented method of claim 1 wherein the user optionally identifies additional elements of value.

10. The computer implemented method of claim 1 wherein the user optionally identifies item variables and/or item performance indicators that are to be excluded from consideration as value drivers.

11. The computer implemented method of claim 1 further comprising the steps of:
(a) entering into a memory of said computer, for each element, a number specifying the maximum number of sub-elements for said element; and
(b) grouping similar items within each element into a number of sub-elements, where said number is less than or equal to the maximum number specified in step (a), by applying a clustering algorithms sequentially by item to the value drivers.

12. The computer implemented method of claim 11 wherein the clustering algorithm comprises a "Kohonen" neural network.

13. A computer implemented method for defining composite variables that represent the performance of elements of value within a business enterprise in generating current-operation revenue, expense and/or changes in capital during each point of time within a sequential series of points in time preceding a specified valuation date comprising the steps of:
(a) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing the current operation revenue,

current operation expense, and current operation changes in capital of said enterprise;

(b) entering into a memory of said computer numbers representing the value of variables associated with all items within an element, for each point in time of said sequential series of points in time, for each element;

(c) calculating and storing item performance indicators, for each element of said enterprise, for said sequential series of points in time;

(d) identifying the item variables and the item performance indicators as value drivers, by element, that generate enterprise current-operation: revenue, expense or changes in capital, over said sequential series of points in time, for each element of said enterprise; and

(e) defining a composite variables that incorporates the value drivers identified in step (d) to summarize element performance in causing revenue, expense or changes in capital for each element of said enterprise using an induction algorithm.

14. The computer implemented method of claim 13 wherein the numbers representing enterprise current operation revenue, expense and the changes in capital, entered in step (a), for each point in said series of points in time, are optionally divided into sub-groups for more detailed analysis.

15. The computer implemented method of claim 13 wherein the three numbers representing enterprise current operation revenue, expense and changes in capital, entered in step (a), are calculated by a method comprising the steps of:

(a) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing total: revenue, expenses, and changes in capital of said enterprise;

(b) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing: the total growth option: revenue, expenses and changes in capital of said enterprise; and

(c) subtracting: each of growth option revenue, expense and changes in capital from the corresponding total revenue, expense or changes in capital to yield the current operation revenue, expense and change in capital for said enterprise, for each point in time of said sequential series of points in time.

16. The computer implemented method of claim 13 wherein some portion of said item variable data entry into said memory of said computer in step (b) is completed via automated retrieval of information from the internet.

17. The computer implemented method of claim 13 wherein item performance indicators calculated in step (c) for each item within an element include: the cumulative total value, the period to period rate of change in value, the rolling average value and the time lagged value of each item variable.

18. The computer implemented method of claim 13 wherein a search algorithm identifies the item variables and item performance indicators that clearly aren't value drivers before induction algorithm processing is started.

19. The computer implemented method of claim 13 wherein, later points in time of the sequential series of points in time are given greater weight than earlier points in time when identifying item variables and item performance indicators in step (d).

20. The computer implemented method of claim 13 wherein said elements of a business enterprise include at a minimum: customers, sales employees, production/service employees, support employees, other employees, vendors, channel partners, production equipment, infrastructure and brand names.

21. The computer implemented method of claim 13 wherein the user optionally identifies additional elements of value.

22. The computer implemented method of claim 13 wherein the user optionally identifies item variables and/or item performance indicators that

16. The computer implemented method of claim 13 wherein some portion of said item variable data entry into said memory of said computer in step (b) is completed via automated retrieval of information from the internet.

17. The computer implemented method of claim 13 wherein item performance indicators calculated in step (c) for each item within an element include: the cumulative total value, the period to period rate of change in value, the rolling average value and the time lagged value of each item variable.

18. The computer implemented method of claim 13 wherein a search algorithm identifies the item variables and item performance indicators that clearly aren't value drivers before induction algorithm processing is started.

19. The computer implemented method of claim 13 wherein, later points in time of the sequential series of points in time are given greater weight than earlier points in time when identifying item variables and item performance indicators in step (d).

20. The computer implemented method of claim 13 wherein said elements of a business enterprise include at a minimum: customers, sales employees, production/service employees, support employees, other employees, vendors, channel partners, production equipment, infrastructure and brand names.

21. The computer implemented method of claim 13 wherein the user optionally identifies additional elements of value.

22. The computer implemented method of claim 13 wherein the user optionally identifies item variables and/or item performance indicators that will not be included in the composite variable.

23. The computer implemented method of claim 13 further comprising the steps of:

(a) entering into a memory of said computer, for each element, a number specifying the maximum number of sub-elements for said element; and

(b) grouping similar items within each element into a number of sub-elements, where said number is less than or equal to the maximum number specified in step (a), by applying a clustering algorithm.

24. The computer implemented method of claim 23 wherein the clustering algorithm comprises a "Kohonen" neural network.

25. A computer-implemented method for valuing one or more elements of a business enterprise on a specified valuation date, comprising the steps of:

(a) entering value driver data, by element, into a memory of said computer, for each point in time of a sequential series of points in time preceding said valuation date, for each element of said enterprise;

(b) calculating and storing numbers representing the correlation percentage between said value driver data, entered in step (a), and each of: revenue, expense, and changes in capital for said enterprise using a predictive model;

(c) entering into a memory of said computer three numbers representing the capitalized values of future revenue, expenses, and changes in capital for said enterprise on said date;

(d) for each value driver, multiplying each of said three numbers for capitalized value of future revenue, expenses, and changes in capital by the corresponding correlation percentage to yield a revenue value, an expense value and a capital value; and

(e) for each element, summing the values for all value drivers, calculated in step (d), to yield the total value of the element.

26. The computer implemented method of claim 25 wherein the numbers representing enterprise current operation revenue, expenses and the changes in capital, entered in step (a), for each point in said series of points in time, are optionally divided into sub-groups for more detailed analysis.

27. The computer implemented method of claim 25 wherein the three numbers representing enterprise current operation revenue, expense and changes in capital, entered in step (a), are calculated by a method comprising the steps of:

(a) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing total: revenue, expenses, and changes in capital of said enterprise;
(b) entering into a memory of said computer, for each point in time of said sequential series of points in time, three numbers representing: the total growth option: revenue, expenses and changes in capital of said enterprise; and
(c) subtracting: each of growth option revenue, expense and changes in capital from the corresponding total revenue, expense or changes in capital to yield the current operation revenue, expense and change in capital for said enterprise, for each point in time of said sequential series of points in time.

28. The computer implemented method of claim 25 wherein some portion of said item variable data entry into said memory of said computer in step (a) is completed via automated retrieval of information from the internet.

29. The computer implemented method of claim 25 wherein said elements of a business enterprise include at a minimum: customers, sales employees, production/service employees, support employees, other employees, vendors, channel partners, production equipment, infrastructure and brand names.

30. The computer implemented method of claim 25 wherein the predictive model used in step (c) comprises a neural network.

31. The computer implemented method of claim 25 wherein, in calculating the correlation percentages in step (c), later points in time of the sequential series of points in time are given greater weight than earlier points in time.

32. The computer implemented method of claim 25 wherein said elements of a business enterprise include at a minimum: customers, sales employees, production/service employees, support employees, other employees, vendors, channel partners, production equipment, infrastructure and brand names.

33. The computer implemented method of claim 25 wherein the user optionally identifies additional elements of value.

34. The computer implemented method of claim 25 wherein the user optionally identifies item variables and/or item performance indicators that will not be included in the composite variable.

35. The computer implemented method of claim 25 further comprising the steps of:

(a) entering into a memory of said computer, for each element, a number specifying the maximum number of sub-elements for said element; and

(b) grouping similar items within each element into a number of sub-elements, where said number is less than or equal to the maximum number specified in step (a), by applying a clustering algorithm.

36. The computer implemented method of claim 35 wherein the clustering algorithm comprises a "Kohonen" neural network.

37. The computer implemented method of claim 25 wherein said capitalized values of future revenue, expenses, and changes in capital for the enterprise on the valuation date entered in step (d) are calculated by a method comprising the steps of:

(a) entering into a memory of said computer, for said sequential series of points in time, numbers representing: revenue of said enterprise, expenses of said enterprise, and changes in capital of said enterprise by product, customer and base currency;

(b) applying a set of prescribed mathematical algorithms, as implemented by a computer program stored in said computer, to said revenue, expense and change in capital numbers to calculate: forecasts of revenue, expense and changes in capital of said enterprise and a variable with each forecast element that facilitates forecast synchronization,

(c) applying a set of prescribed mathematical algorithms, as implemented by a computer program stored in the computer system, to said forecasts to calculate multivalent composite forecasts of revenue, expense and changes in capital

(d) entering into a memory of said computer, a number representing: the weighted average cost of capital of said enterprise;

(e) calculating the average period-to-period growth rate of each of said multivalent forecasts over the forecast time period; and

(f) calculating the capitalized value of said future revenue, expenses and changes in capital given the weighted average cost of capital from step (d), assuming that period to period growth remains constant at the rates calculated in step (e).

38. A computer-implemented method for valuing one or more growth options of a business enterprise on a specified valuation date, comprising the steps of:

(a) entering into a memory of said computer, for each point in time of a sequential series of points in time following said valuation date, three numbers representing: the revenue, expenses and changes in capital of said growth option in current forecast;

(b) entering into a memory of said computer, for each point in time of said sequential series of points in time following said valuation date, four numbers representing: the revenue, expenses, changes in capital and percentage likelihood of occurrence of alternative scenarios for said growth option;

(c) entering into a memory of said computer, a number representing: the weighted average cost of capital of said enterprise;

(d) calculating the value of the growth option using an option pricing algorithm.

39. A computer-implemented method of preparing a Value Map™ for a business enterprise on a specified valuation date, comprising the steps of:

(a) defining one or more elements of value for the Current Operation of said enterprise;

(b) defining one or more growth options for said enterprise;

(c) calculating the value all defined elements of value and the residual going concern value within the Current Operation for said enterprise on said valuation date;

(d) calculating the value of one or more growth options for said enterprise on said valuation date; and

(e) combining the results from step (c) and step (d) in the copywritten Value Map™ format for display and optional printout.

40. A system for valuing one or more elements of a business enterprise on a specified valuation date, comprising:

(a) an element performance processing system for calculating changes in element performance over time;

(b) a financial data aggregation means, for aggregating information regarding enterprise revenue, expense and changes in capital for a series of periods prior to the valuation date;

(c) an element to value driver model for determining the percentage correlation of changes in said calculated performance of each element to said revenue, expense and changes in capital over said time period;

(d) a financial forecast processing system for calculating revenues, expenses and changes in capital of a business enterprise for a series of periods after said valuation date;

(e) a financial valuation processing system for determining the capitalized value of said future revenues, expenses and changes in capital for said valuation date; and

(f) an element valuation processor for calculating the value of each element by multiplying said capitalized values of future revenue, expenses and changes in capital by said correlation percentages and then summing the three resulting figures to yield the value of the element on said valuation date

41. The system of claim 40 wherein the element performance processing system comprises:

(a) a data storage device for storing composite variable formulae;

(b) a data input means, coupled to the data storage means, for obtaining the location of the composite variable data;

(c) data aggregation means, coupled with the data input means, for aggregating the composite variable data for each element;

(d) a composite variable processor, coupled with the data input means, for calculating composite variable values for each item and each element for each time period; and

(e) data storage means for storing item and element composite variables.

42. The system of claim 40 wherein the element to value driver model comprises:

(a) a predictive model for determining the correlation between element performance and each of enterprise: revenue, expenses and changes in capital over a defined time period prior to said valuation date;

(b) a financial data input means, coupled to the predictive model, for obtaining the revenue, expense and changes in capital data required for evolving and training the model,

(c) data aggregation means, coupled with the data input means, for aggregating the data required for evolving and training the model;

(d) a model development means, coupled to the predictive model, for evolving and training the predictive model;

(e) a data storage means for storing the weights of the trained model;

(f) a percentage computation means, for determining the percentage correlation of each element with revenue, expense and change in capital;

(g) a data input means, coupled to the percentage computation means, for obtaining the weights; and

(h) a data storage means for storing the correlation percentages.

43. The system of claim 40 wherein the financial forecast processing system comprises:

(a) a data storage device for storing forecast algorithms and forecast synchronization variable algorithms;

(b) a data input means, coupled to the data storage means, for obtaining the location of historical enterprise financial information;

(c) data aggregation means, coupled with the data input means, for aggregating the historical financial information;

(d) a multi-dimensional forecast processor, coupled with the data input means, for calculating multi-dimensional forecasts and a forecast synchronization variable for each of revenue, expenses and changes in capital;

(e) a composite forecast processor, coupled with the multi-dimensional forecast processor, for calculating multivalent composite forecasts of revenue, expense and changes in capital; and

(f) a data storage means for storing said composite forecasts.

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